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first and second electro active substrates each having first and second opposed continuous planar surfaces wherein each of said first opposed surfaces have a polarity and each of said second opposed surfaces have an opposite polarity, wherein said first opposed surfaces of said first and second electro active substrates are in close contact;

a first electrode coupled to a junction formed by said first opposed surfaces having the same polarity;

a second electrode coupled to said second opposed surface of said first electro active substrate;

a third electrode coupled to said second opposed surface of said second electro active substrate;

a first endcap joined to said second opposed surface of said first electro active substrate;

a second endcap joined to said second opposed surface of said second electro active substrate;

first circuitry for applying a first electric field across said first and second electrodes; and

second circuitry for applying a second electric field across said first and third electrodes, said second electrical field having a phase relationship with said first electrical field, wherein the application of said first and second electrical fields causes an amplitude and phase relationship such that said electro active device produces a combined flexural and bending motion generating a directional beam.